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Safety Precautions

Notational

The following are basic precautions to ensure user safety and reduce the risk of property damage. Please read this carefully and follow the precautions at all times for proper use of the device.

Warning / Caution

Warning : This symbol indicates explanations about extremely dangerous matters.
If users ignore this symbol and handle the device the wrong way, serious injury or death could result.

Caution : This symbol indicates explanations about dangerous matters.
If users ignore this symbol and handle the device the wrong way, damage to home or property could result.

Notational

	Failure to follow directions noted by this symbol could result in bodily harm or damage to equipment.
	Prohibited
	Important to read and understand at all times
	Do not disassemble

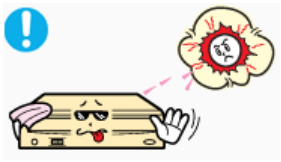
▪	Any change or modification not expressly approved by designated qualified personnel could void your authority to operate this device.
▪▪	Always make sure that the disc does not have a crack before use. If the disc has a crack (especially around the center hole), it is recommended to make a copy immediately and use the copy instead. When a cracked disc is used continuously, the size of the crack is likely to grow and this will eventually result in irreparable damage to the disc.
▪▪	Important to read and understand at all times.

Safety Precautions

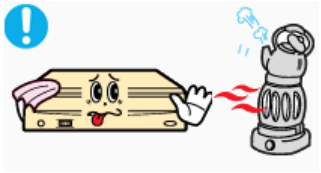
Installation

When you Install the drive

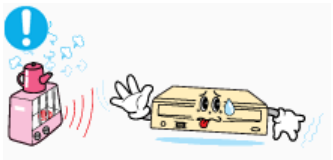
- Place the drive on a level surface.
  - Failure to do so may cause the device to fall onto a hard surface, resulting in damage or malfunction.



- Do not place the drive in direct sunlight.



- Avoid low- or high-temperature environments.

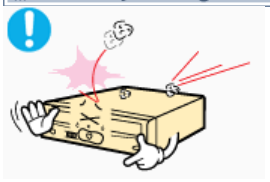


- Avoid high-humidity environments.

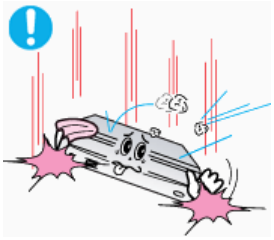
Safety Precautions

While Operating

While Operating



- Handle with caution to prevent damage from external shock.



- Do not drop the drive, and protect it fromsevere shocks.
  - It can damage the drive or cause it to malfunction.

- Do not move the drive while in operation and do not attempt to open the disc tray byforce.
  Make sure to close all working programs before attempting to open the tray and always usethe open/close button.
  - Do not insert a pin into the emergency opening while in operation.

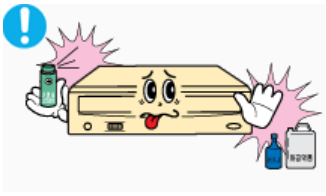
- Do not use cracked, distorted or damaged discs.
  - In particular, a disc with a crack on the inner tracks may break while in use.

Safety Precautions

Other

Other

- Never allow food particles or foreign substances to enter the drive casing.

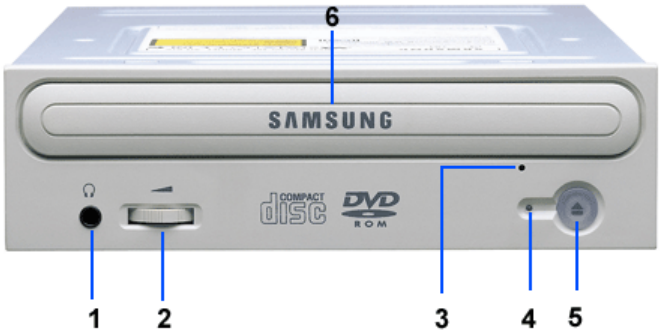


- To protect against the risk of fire, do ot spill such liquids as alcohol and benzene on the drive.

- Do not disassemble, attempt to repair or modify the device without express approval as directed in the manual.
  - To reduce the risk of damage, electric shock, and fire,

Introduction

Front

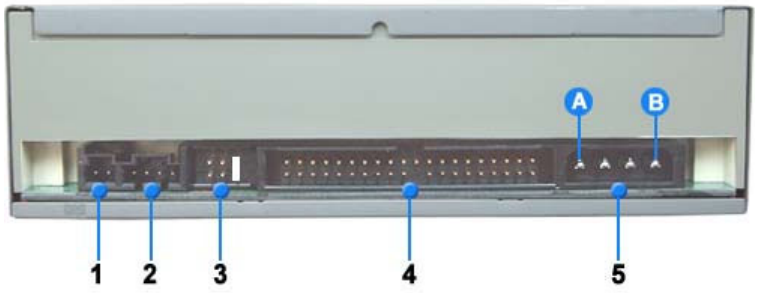


1. Connector for stereo headphones with a 3.6 mm stereo mini-jack.
2. Headphone volume control.
3. Emergency eject hole. (if the compartment does not open when you press the Eject button, power off the computer, insert a pin or unfolded paper clip in the hole and push firmly)
4. Indicator Light. (When it is green, a disc is being read.)
5. Eject button.
6. Disc compartment. (the compartment opens and closes automatically when you press the Eject button)

Design and specifications are subject to change without prior notice.

Introduction

Rear



1. Two-pin digital audio output terminal for use with a sound or MPEG card supporting digital audio features.
2. Four-pin sound output terminal for use with a sound card. (refer to the sound card documentation for further details)
3. Master/slave select terminal.
4. 40pin host IDE interface connector.
5. 4pin power terminal.
   (A : +5V DC)
   (B : +12V DC)

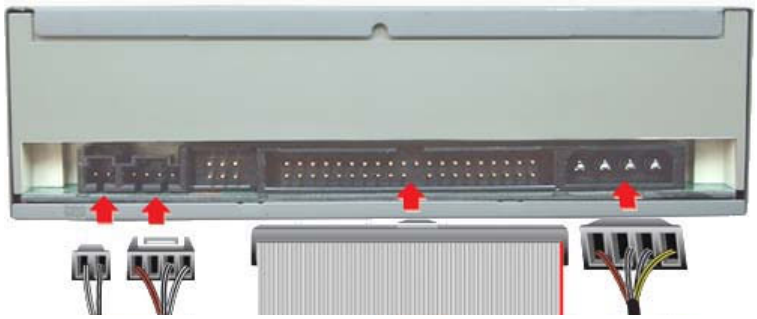
Setup

Installing the CD-R/RW Drive

To install your DVD-ROM Drive in the PC, proceed as follows.

1. Make sure that the PC is powered off and disconnected from any power source.
2. If necessary, attach a horizontal bracket to both sides of the drive.
3. Remove the cover from a free expansion slot and install the DVD-ROM drive, as shown in the illustration.

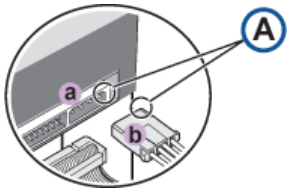
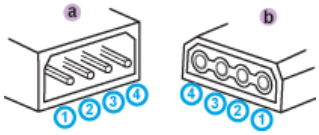
Connecting the Cables



Setup

1. Connecting the power cable

- The 4-pin power cable from the internal power unit of your computer must be connected to the power terminal on the rear of the DVD-ROM drive.

	
A - Cut Side	**1** +5V DC **2** Ground **3** Ground **4** +12V DC

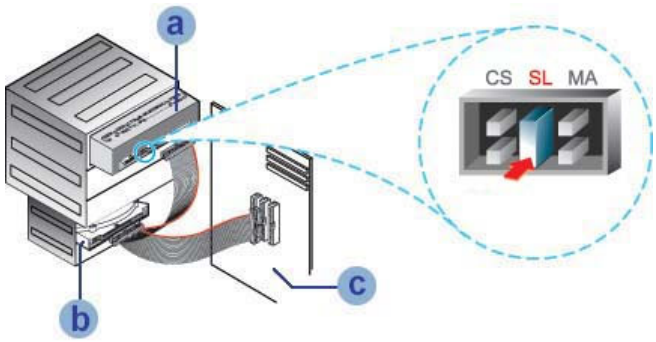
Note: An improperly connected power cable may cause trouble. Check the direction of the power connector and the incline side of the DVD-ROM drive before connecting.

2. Connecting the IDE cable

Insert the IDE cable (40-pin), which is connected to the hard disk to the interface terminal.
(Place the red line of the cable close to the Pin 1.)

When using one IDE cable

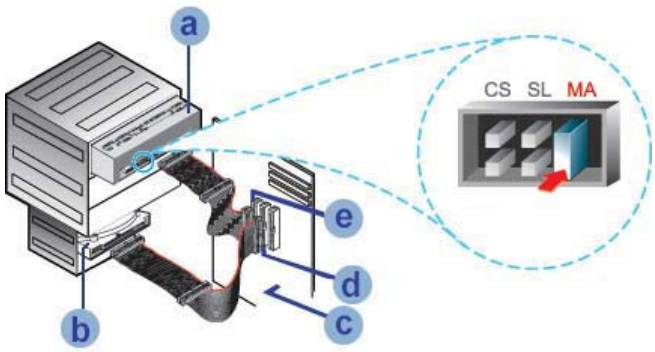
Connect the cable to the SL (Slave) of the Master/Slave Select Terminal at the rear of the DVD-ROM drive.



a	**: Slave Drive (Choose the SL Jumper)**
b	**: Hard Drive**
c	**: MainBoard**

When using two IDE cable

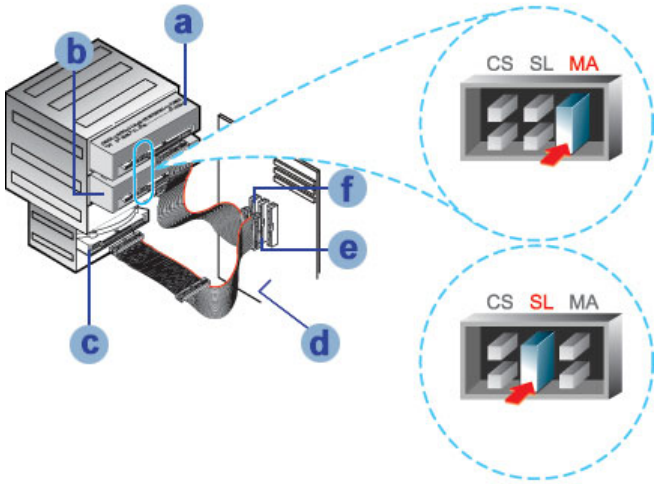
- If there is only one DVD-ROM drive, select MA (Master).



a	**: Master Drive (Choose the MA Jumper)**	**b**	**: Hard Drive**
c	**: MainBoard**	**d**	**: Primary 1**
e	**: Secondly 1**		

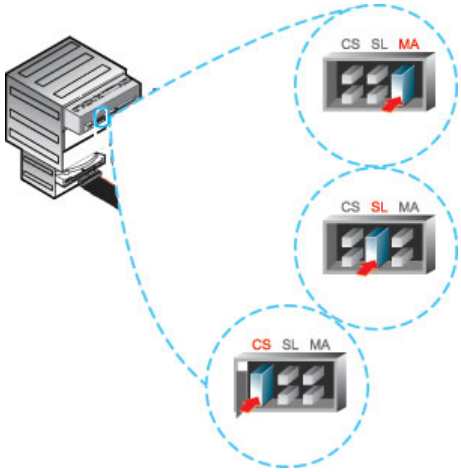
Setup

- If there is two DVD-ROM drive, select MA (Master) / SL (Slave).



a	: Master Drive (Choose the MA Jumper)	b	: Slave Drive (Choose the SL Jumper)
c	: Hard Drive	d	: MainBoard
e	: Primary 1	f	: Secondly 1

3. Installing a jumper on the master/slave select terminal



Connect a jumper to the rear side of the DVD-ROM.

If the jumper is connected to MA (Master), it will work in the Master mode.

If the jumper is connected to SL (Slave), it will work in the Slave mode.

If the jumper is connected to CS (CSEL), you can control the device by using the host interface signal CSEL. (In general, connection to MA is recommended.)

4. Connecting the audio cable from a sound card

- Connect the 4-pin audio cable between the sound output terminal on the DVD-ROM drive and the audio input terminal on the sound card.
- For clearer sound, use a digital output terminal.(Available only for the CAID that supports digital output) This may not be available for general sound cards.

Setup

Installing the Device Driver

No additional device driver is needed for Windows 95/98/2000/ME/XP/NT4.0, as the default Windows device driver is used. You can check that the DVD-ROM drive has been correctly detected by Windows. To do so, proceed as follows.

1. Double-click on the **My Computer** icon on your desktop.
2. Double-click on the **Control Panel** folder.
3. Double-click on the **System** icon.
4. Click on the Device **Manager** tab.
5. Expand the CD-ROM branch.
   The **SAMSUNG DVD-ROM SD** - *** device name is displayed.

Setting Up the Device Driver

Automatic Setup

The device driver is located in the Ddriver folder of the User's guide disc which is provided in the package.

1. Insert the setup diskette in the diskette drive and change the directory to A:,
   where A: is the diskette drive.

   To do so, type **A:** after the **C:** prompt and press **[Enter]**.
2. Type **CDSETUP** and press **[Enter]**.
3. Reboot the computer.

Manual Setup

1. Make the **C:\SAMSUNG** directory.
2. Copy the files from the diskette to the **C:\SAMSUNG** directory.

   To do so, type **COPY D:\Ddriver * . * C:\SAMSUNG** after the **C:**\prompt and press [**Enter**].
3. Edit the **CONFIG.SYS** file.
   Add the **DEVICE=C:\SAMSUNG\SSCDROM.SYS \D:SSCD000/V** entry.

```
LAST DRIVE = Z
----------
----------
DEVICE = C :\SAMSUNG\SSCDROM.SYS/D : SSCD000/V
```

4. Edit the **AUTOEXEC.BAT** file.
   Add the **C:\SAMSUNG\MSCDEX/D:SSCD000** entry.

```
----------
----------
C :\SAMSUNG\MSCDEX /D:SSCD000
```

5. Reboot the computer.

Using the Drive

Using the DVD-ROM Drive

To play audio or video CDs and / or DVDs in your DVD-ROM drive, proceed as follows.

1. Push the power button and boot the computer.
2. After booting the computer, open the disc compartment by pressing the Eject button.
3. Insert the disc (CD/DVD) with the label on the disc facing upwards and close the disc compartment by pressing the Eject button. The indicator light comes on.
4. Play the disc (CD/DVD).
5. Accessories
   - The type of accessories varies depending on product model.

Audio cable.

User Manual & Setup Guide.

Software.

Screws.

Device Driver.

Playing Audio CDs
Run the CD player supplied with Windows or your sound card.
You can listen to the CD by connecting hearphone to the earphone connector. If you have installed the appropriate player, such as Microsoft Windows Media Player, you can adjust the volume using the headphone volume control on the drive front panel.

Playing Video CDs
Set up and run the SOFT MPEG program.

Storing and Cleaning Your Discs

To ensure a long service life for your discs and drive, follow the pre-cautions below when storing and cleaning your discs.

1. Do not place a disc in direct sunlight.
2. Store a disc vertically in a well-ventilated and stable location.
3. Do not write or attach a label on a disc.
4. Do not drop a disc or place heavy objects on it.
5. Do not touch the surface of a disc; hold it by the edges.
6. To clean a disc, polish lightly from the inside of the disc to the outside with a soft cotton cloth.
7. Do not leave the disc compartment open when you are not using it.

Upgrading the Firmware Flash Memory

The product firmware can be upgraded by downloading the updated file from the following Web site:
http://samsung-ODD.com
http://samsung.com

Using the Drive

System Requirements

Before you install the DVD-ROM drive, we strongly recommend that you check that your setup meets the system requirements listed below.

Item	Description
Computer	Intel Pentium II (or higher), 128 MB of RAM (or higher) with an IDE interface
Disk space	100 MB minimum
Windows version	Windows 98 / 2000 / ME / XP Windows NT 4.0 (or higher)

DVD Region Protection Coding (RPC):

The RPC feature is supported on DVD players and is used with DVD-video discs (such as movies). Currently, the motionpicture industry has divided the worldinto different regions or zones thatcorrespond to the regional markets intowhich the motion picture industry releasesmovies. Simply put, RPC codes are placedon movies marketed throughout the world,based on the region of the world inwhich they are being sold. These RPCcodes help control and prevent piratingof new movies into other motion pictureregions prior to their true releasedates within those markets.
The SD-616 DVD-ROM drive supports RPCphase II. In the RPC-2 mode, the localcode can be changed by users. RPC-2is selected by default for the SD-616 DVD-ROM drive.
You can change the region code up tofive times via an MPEG application.

Please contact your dealer or local SAMSUNG representative if you wish tochange the local code more than fivetimes.

Troubleshooting

Problem	Meaning / Solution
The DVD-ROM drive is not detected by the computer.	Check that the power, audio and IDE cables are correctly connected to the computer.
After installing the DVD-ROM drive, the PC gets slower.	Change the IDE cable and reconnect it to the computer. Preferably, connect a second IDE cable to the DVD-ROM drive in master mode.
	Check the position of the jumper in the master/slave select terminal.
The DVD-ROM drive is not recognized by MS-DOS.	Reinstall the device driver or update it with the latest version by downloading it from the Samsung Web site. - **http://samsung-ODD.com** - **http://samsung.com**
The DVD-ROM drive is not detected by Windows.	This case may occur when there is a Windows installation problem; reinstall Windows.
No sound is heard from an audio CD.	Check whether the audio cable is correctly connected to the sound output terminal on the DVD-ROM drive and the sound card CD-IN terminal.
	Check that the sound card is operational.
	Adjust the volume control.
	Run the CD player supplied with Windows or your sound card. You can listen to the CD by connecting headphones to the appropriate connector. If you have installed the appropriate player, such as Microsoft Windows Media Player, you can adjust the volume using the headphone volume control on the drive front panel.
	If you select DIGITAL at CD Audio Play in Media Player of Windows ME/XP, the earphone does not appear in the Digital Mode.
A CD is not read or is read too slowly.	Check whether the CD is of good quality and clean it, if necessary.
The disc compartment will not open.	Check that the power cable is correctly connected.
	Power off and disconnect the PC. Insert a pin or unfolded paper clip in the emergency hole and push firmly until the disc compartment opens.
When the MPEG software plays a Video CD, the pictures are not regular and the running speed is too slow.	Adjust the size of the replay screen.
	After checking the display resolution, adjust it, if necessary.
The Disc is not in message is displayed even though a disc has been inserted.	The computer may not recognize the disc if you start playback too quickly after inserting the disc. Open and close the disc compartment and try again.
	Clean the disc and try again.
The DVD-ROM drive is not detected after it is connected to a sound card.	The interface mode of the sound card is AT-BUS. You must therefore connect the DVD-ROM drive to the IDE port on the PC mother board, rather than to the sound card, or install an IDE compatible sound card.

Specifications

SAMSUNG continually strives to improve its products. Both the design specifications and these user instructions are thus subject to change without notice.

Technical Specifications

ITEM			
Model Name	SD-616Q		
ITEM	DVD	|	CD
Disc			
Disc types supported in read mode	DVD-ROM, DVD-R, DVD-RW, DVD-VIDEO, CD-DA(Audio), CD-ROM, CD-ROM XA, CD-Plus, CD-Extra, Photo-CD (Single, Multi - session), Video CD ready, Enhanced CD, CD-I/FMV, CD-R, CD-RW, CD-TEXT		
Disc diameter	120mm or 80mm		
DRIVE PERFORMANCE			
Data transfer rate			
Sustained :	Max. 21,600KB/sec(16X) / Max. 7,200KB/sec (48X)		
PIO mode 4 :	16.6MB/sec		
Multiword DMA mode 2 :	16.6MB/sec		
UDMA mode 2 :	33MB/sec		
ACCESS TIME (typical)	115ms	|	100ms
Data Buffer capacity	512KB		
Laser	Semiconductor laser		
Slide mechanism	Stepping motor		
Spindle motor	Brushless motor		
Load mechanism	Tray. DC motor (Soft Eject). Horizontal/Vertical.		
ERROR RATE			
ERROR RATE	10^{-15}	|	Mode 1:10^{-12}, Mode 2:10^{-9}
FRONT PANEL			
Eject button	Auto eject or Auto inject		
Indicator(LED)	BUSY		
Headphone output	Stereo mini-jack (Ø3.6mm) 0.60V ± 20%(rms) 33 ohm		
Volume control	Wheel Knob		
REAR PANEL			
Required power	+5VDC: 2.0A, +12VDC : 1.0A		
Interface connector	ATAPI		
Audio output	Line out 0.7V ± 20%(rms) : 47Kohm		
Jumper block	Molex 70203 or other compatible models		
OPERATING ENVIRONMENT			
Operations	Temperature: 5~45°C Humidity: 10~80%		
Storage	Temperature: -25~60°C Humidity: 10~90%		
GENERAL			
Dimensions	148.2 (W) x 42 (H) x 184 (D) mm (including bezel)		
Net weight	740 g		
RELIABILITY			
MTBF	100,000 POH(Duty 25%)		